APPENDIX (5)

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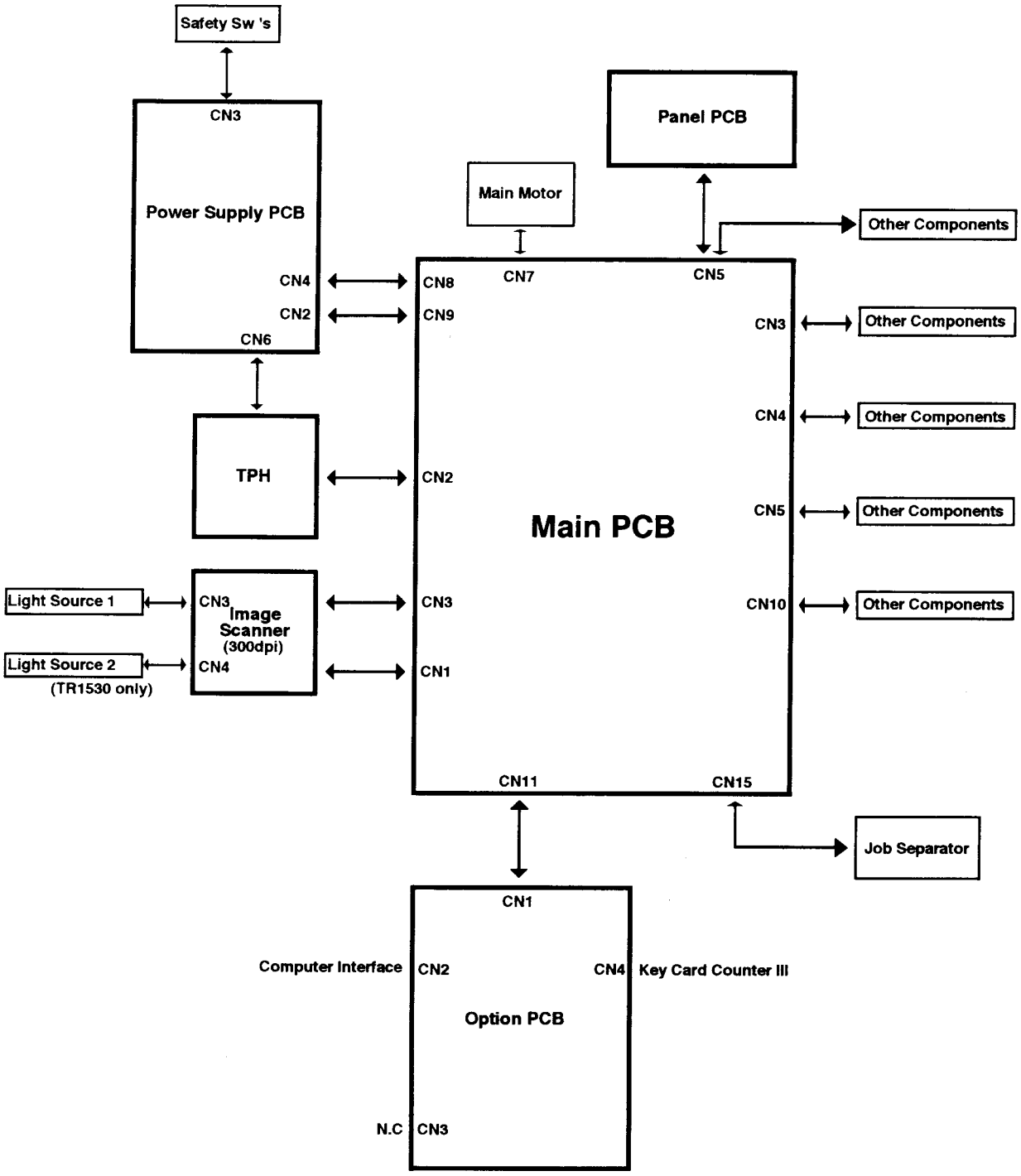
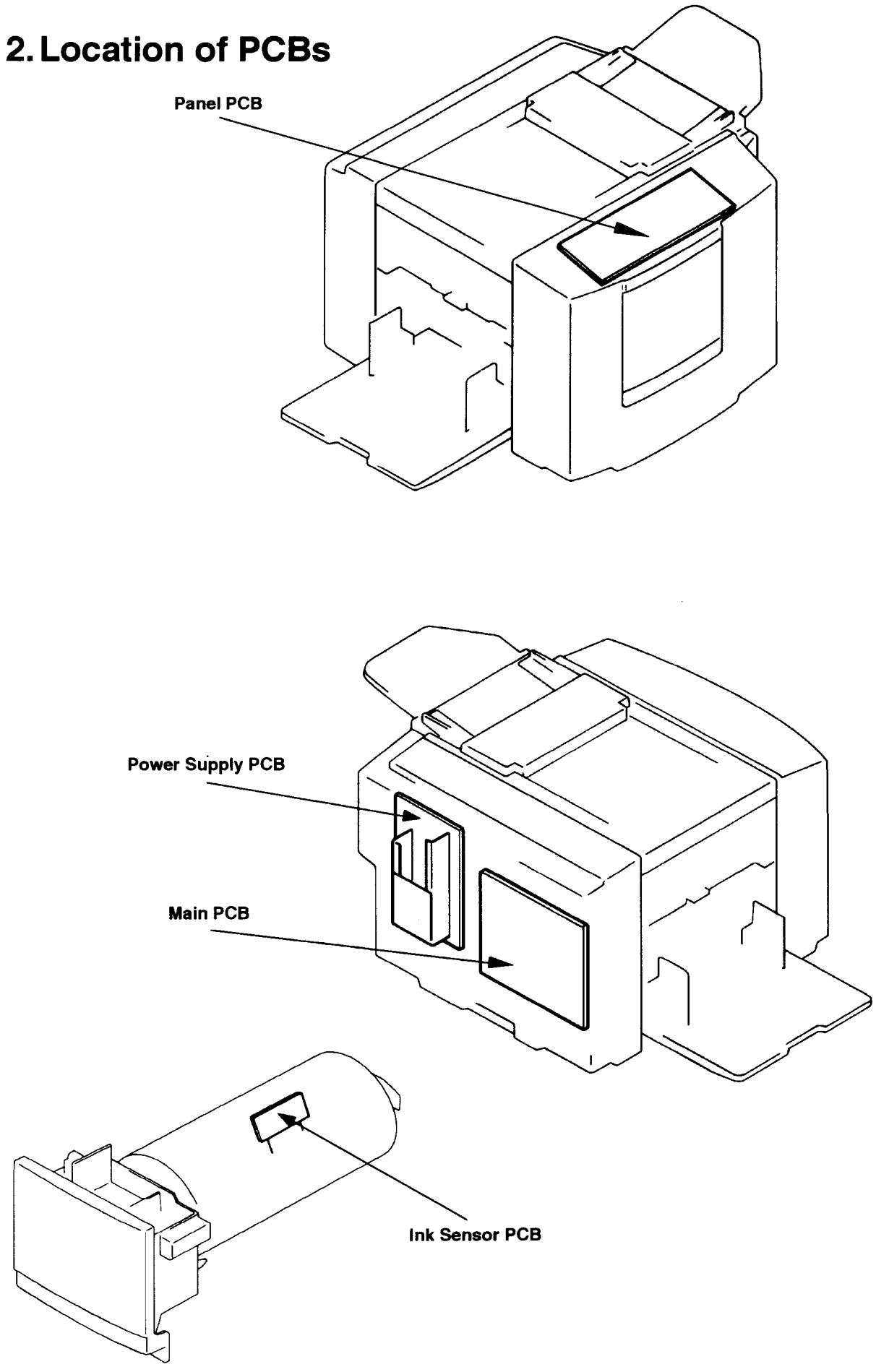
5. Option PCB ..... APX(5)-13

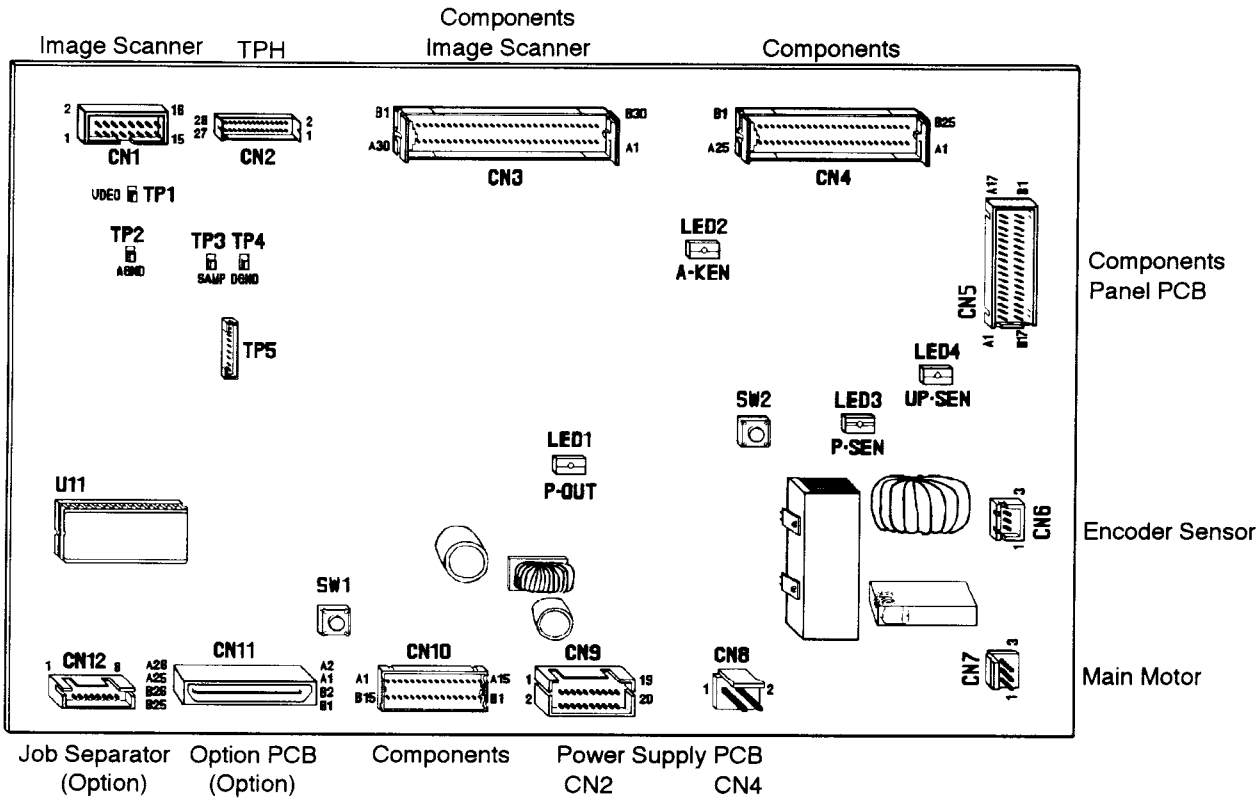
1.Block Chart



2. Location of PCBs



3.Main PCB



SW

SW1: For factory adjustment only

SW2: Drum (Main motor) 15 rpm

LED

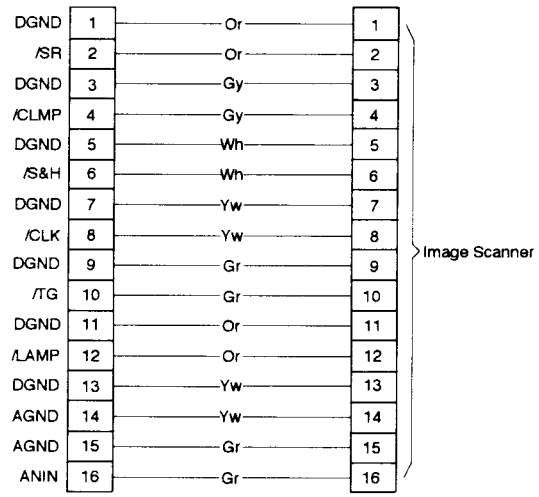
		When LED is ON
LED1: P-OUT	-Paper Receiving Sensor	**Paper detected(Reflected light detected)**
LED2: A-KEN	-Position A Sensor	**Position A detected(Light path is blocked)**
LED3: P-SEN	-Paper Sensor	**Paper detected(Light path is blocked)**
LED4: UP-SEN	-Elevator Upper Limit Sensor	**Upper Limit Position detected(Light path is blocked)**

TP

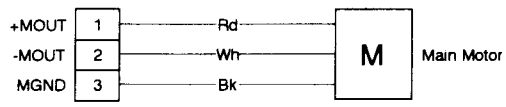
TP1: VDEO	For factory adjustment only
TP2: AGND	For factory adjustment only
TP3: SAMP	For factory adjustment only
TP4: DGND	For factory adjustment only
TP5:	For factory adjustment only

Main PCB

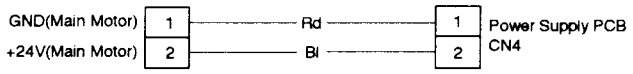
CN1 16PINS



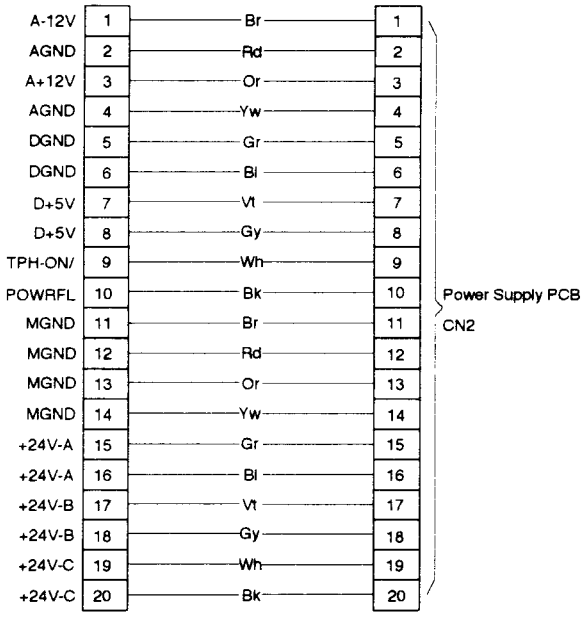
CN7 3PINS



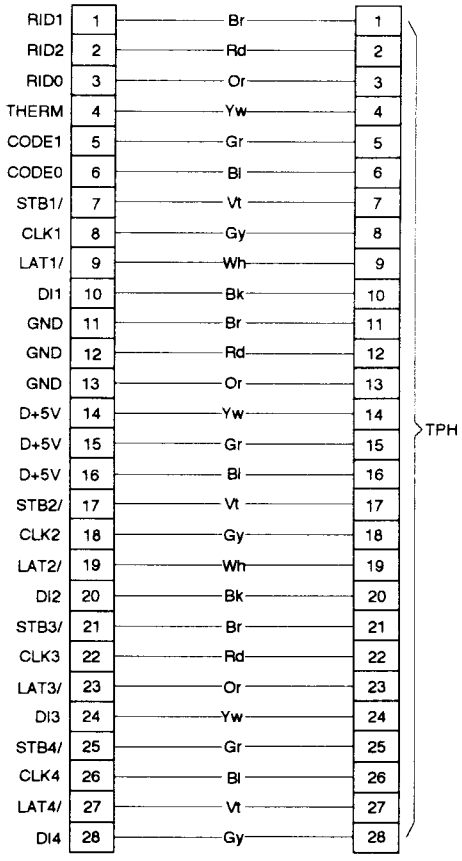
CN8 2PINS



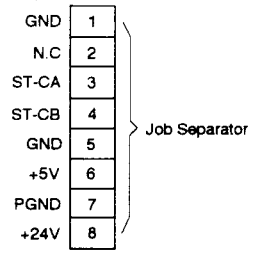
CN9 20PINS



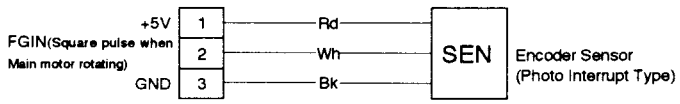
CN2 28PINS

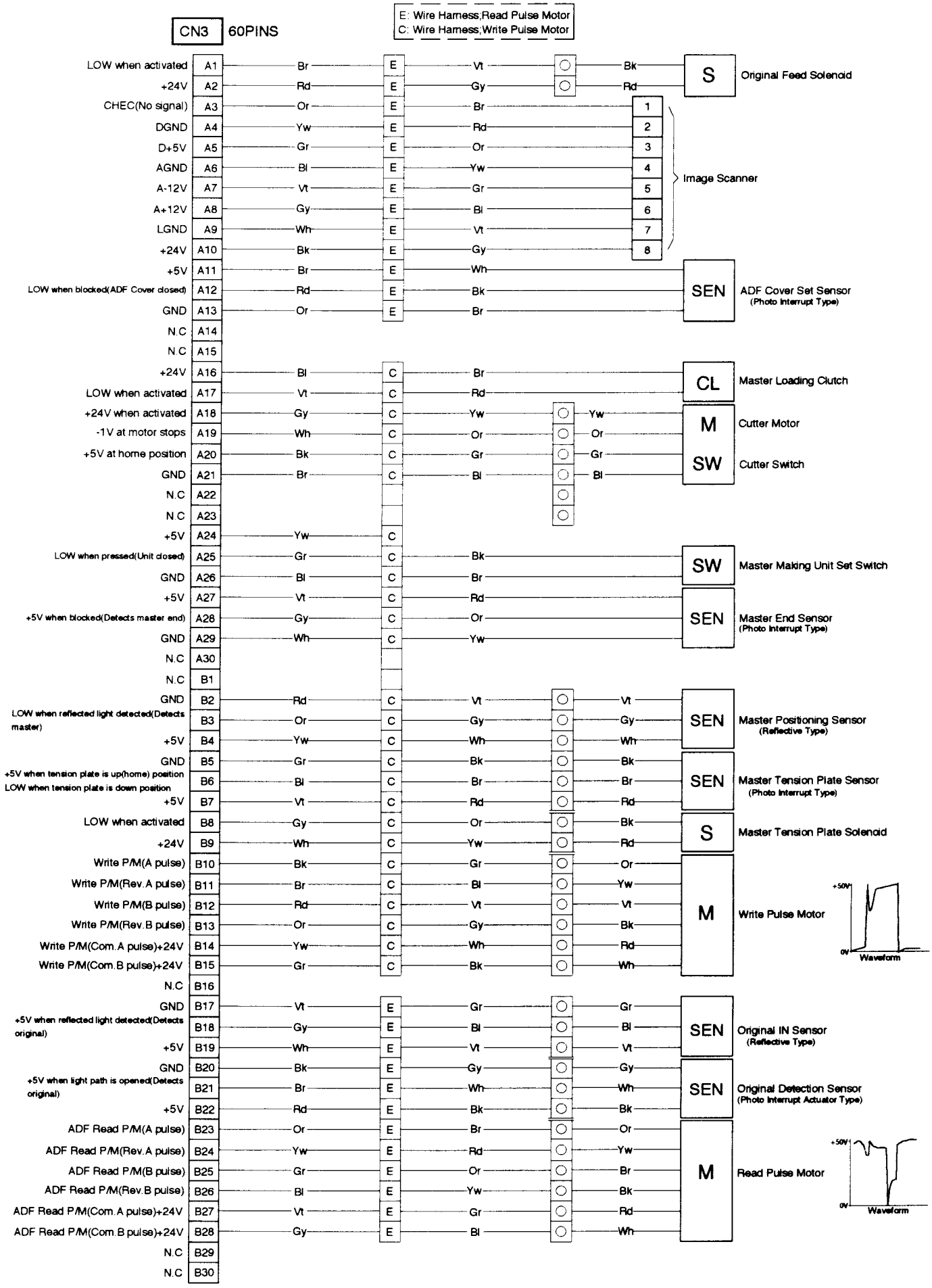


CN12 8PINS

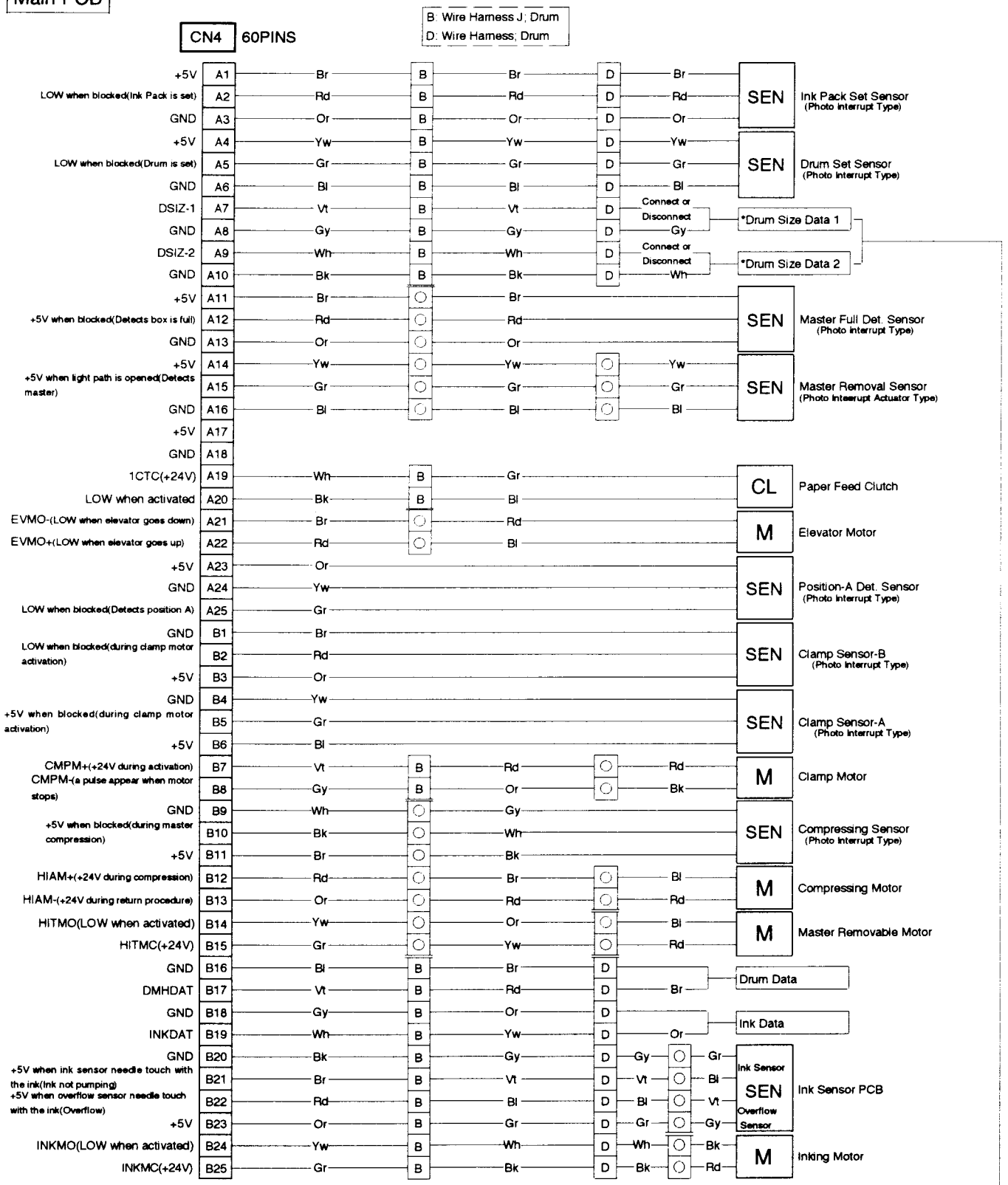


CN6 3PINS



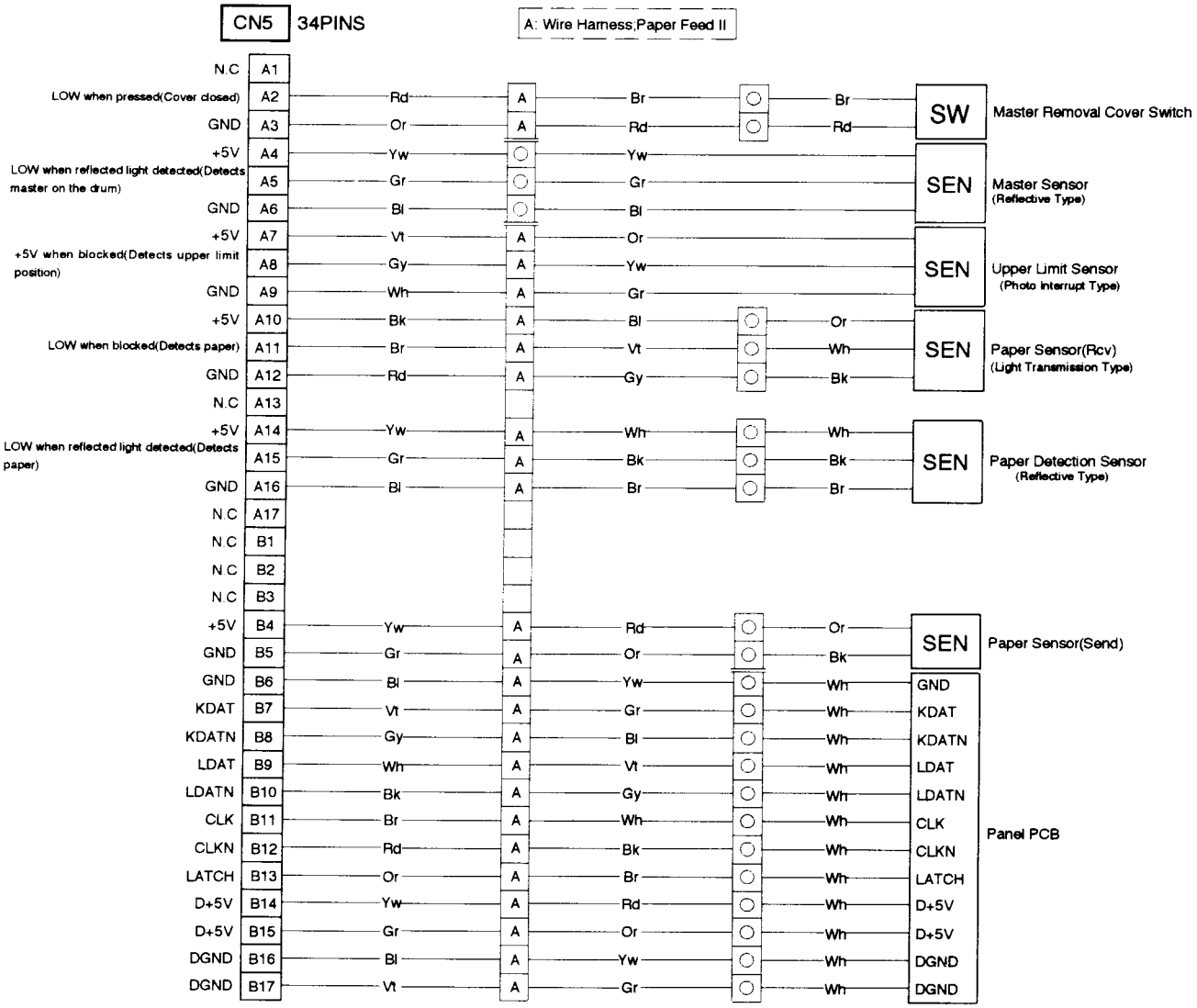

CN3 60PINS
E: Wire Harness;Read Pulse Motor
C: Wire Harness;Write Pulse Motor
LOW when activated A1 Br E Vt Bk S Original Feed Solenoid
+24V A2 Rd E Gy Rd
CHEC(No signal) A3 Or E Br 1
DGND A4 Yw E Rd 2
D+5V A5 Gr E Or 3
AGND A6 Bl E Yw 4
A-12V A7 Vt E Gr 5
A+12V A8 Gy E Bl 6
LGND A9 Wh E Vt 7
+24V A10 Bk E Gy 8
Image Scanner
+5V A11 Br E Wh SEN ADF Cover Set Sensor (Photo Interrupt Type)
LOW when blocked(ADF Cover closed) A12 Rd E Bk
GND A13 Or E Br
N.C A14
N.C A15
+24V A16 Bl C Br CL Master Loading Clutch
LOW when activated A17 Vt C Rd
+24V when activated A18 Gy C Yw Yw M Cutter Motor
-1V at motor stops A19 Wh C Or Or
+5V at home position A20 Bk C Gr Gr SW Cutter Switch
GND A21 Br C Bl Bl
N.C A22
N.C A23
+5V A24 Yw C
LOW when pressed(Unit closed) A25 Gr C Bk SW Master Making Unit Set Switch
GND A26 Bl C Br
+5V A27 Vt C Rd
+5V when blocked(Detects master end) A28 Gy C Or SEN Master End Sensor (Photo Interrupt Type)
GND A29 Wh C Yw
N.C A30
N.C B1
GND B2 Rd C Vt Vt
LOW when reflected light detected(Detects master) B3 Or C Gy Gy SEN Master Positioning Sensor (Reflective Type)
+5V B4 Yw C Wh Wh
GND B5 Gr C Bk Bk
+5V when tension plate is up(home) position
LOW when tension plate is down position B6 Bl C Br Br SEN Master Tension Plate Sensor (Photo Interrupt Type)
+5V B7 Vt C Rd Rd
LOW when activated B8 Gy C Or Bk S Master Tension Plate Solenoid
+24V B9 Wh C Yw Rd
Write P/M(A pulse) B10 Bk C Gr Or
Write P/M(Rev.A pulse) B11 Br C Bl Yw
Write P/M(B pulse) B12 Rd C Vt Vt M Write Pulse Motor
Write P/M(Rev.B pulse) B13 Or C Gy Bk
Write P/M(Com.A pulse)+24V B14 Yw C Wh Rd
Write P/M(Com.B pulse)+24V B15 Gr C Bk Wh
+50V
0V
Waveform
N.C B16
GND B17 Vt E Gr Gr
+5V when reflected light detected(Detects original) B18 Gy E Bl Bl SEN Original IN Sensor (Reflective Type)
+5V B19 Wh E Vt Vt
GND B20 Bk E Gy Gy
+5V when light path is opened(Detects original) B21 Br E Wh Wh SEN Original Detection Sensor (Photo Interrupt Actuator Type)
+5V B22 Rd E Bk Bk
ADF Read P/M(A pulse) B23 Or E Br Or
ADF Read P/M(Rev.A pulse) B24 Yw E Rd Yw
ADF Read P/M(B pulse) B25 Gr E Or Br M Read Pulse Motor
ADF Read P/M(Rev.B pulse) B26 Bl E Yw Bk
ADF Read P/M(Com.A pulse)+24V B27 Vt E Gr Rd
ADF Read P/M(Com.B pulse)+24V B28 Gy E Bl Wh
+50V
0V
Waveform
N.C B29
N.C B30

Main PCB

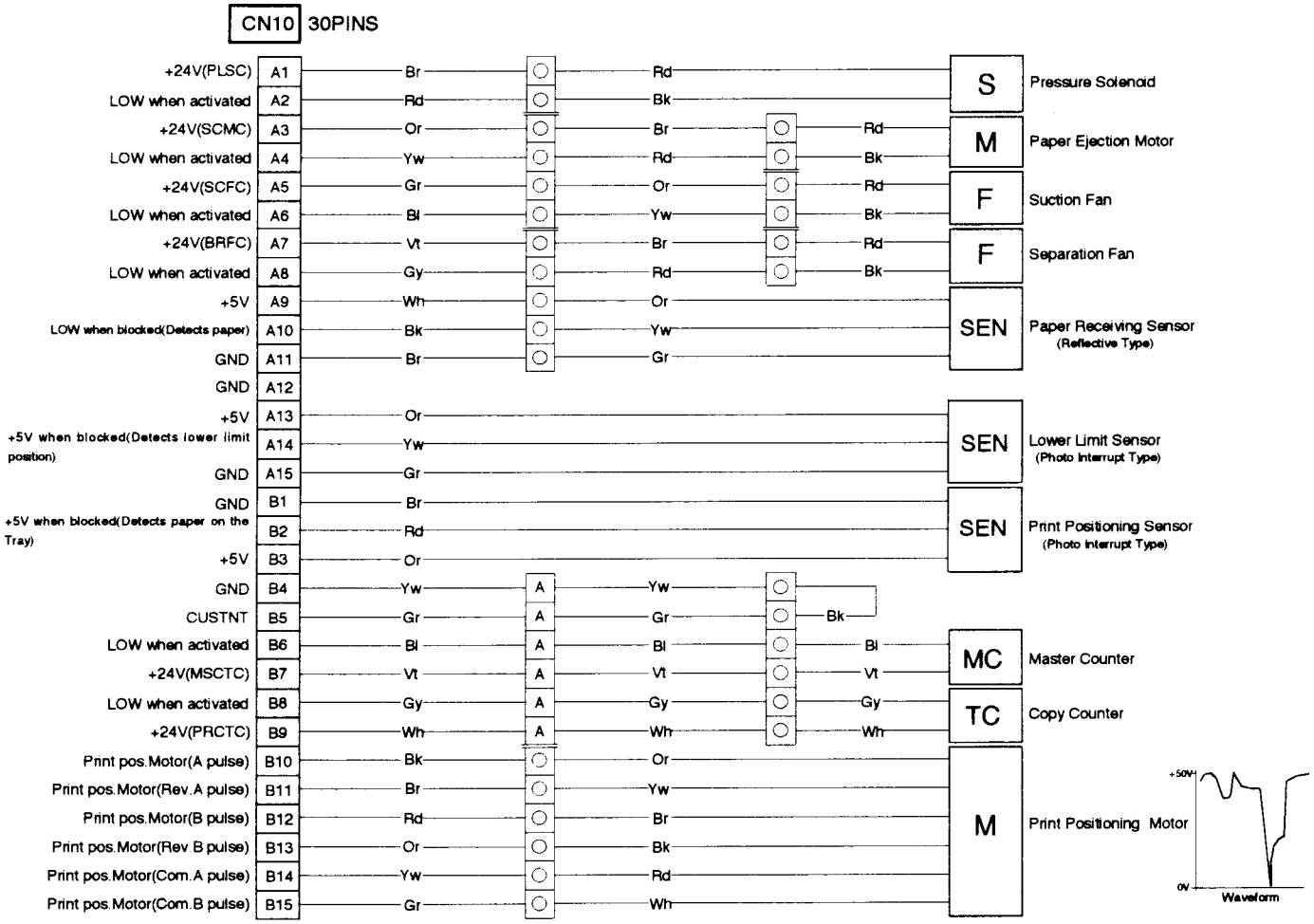

CN4 60PINS
B: Wire Harness J; Drum
D: Wire Harness; Drum
+5V A1 Br B Br D Br SEN Ink Pack Set Sensor (Photo Interrupt Type)
LOW when blocked(Ink Pack is set) A2 Rd B Rd D Rd
GND A3 Or B Or D Or
+5V A4 Yw B Yw D Yw SEN Drum Set Sensor (Photo Interrupt Type)
LOW when blocked(Drum is set) A5 Gr B Gr D Gr
GND A6 Bl B Bl D Bl
DSIZ-1 A7 Vt B Vt D Connect or Disconnect *Drum Size Data 1
GND A8 Gy B Gy D Gy
DSIZ-2 A9 Wh B Wh D Connect or Disconnect *Drum Size Data 2
GND A10 Bk B Bk D Wh
+5V A11 Br Br SEN Master Full Det. Sensor (Photo Interrupt Type)
+5V when blocked(Detects box is full) A12 Rd Rd
GND A13 Or Or
+5V A14 Yw Yw Yw SEN Master Removal Sensor (Photo Interrupt Actuator Type)
+5V when light path is opened(Detects master) A15 Gr Gr Gr
GND A16 Bl Bl Bl
+5V A17
GND A18
1CTC(+24V) A19 Wh B Gr CL Paper Feed Clutch
LOW when activated A20 Bk B Bl
EVMO-(LOW when elevator goes down) A21 Br Rd M Elevator Motor
EVMO+(LOW when elevator goes up) A22 Rd Bl
+5V A23 Or SEN Position-A Det. Sensor (Photo Interrupt Type)
GND A24 Yw
LOW when blocked(Detects position A) A25 Gr
GND B1 Br SEN Clamp Sensor-B (Photo Interrupt Type)
LOW when blocked(during clamp motor activation) B2 Rd
+5V B3 Or
GND B4 Yw SEN Clamp Sensor-A (Photo Interrupt Type)
+5V when blocked(during clamp motor activation) B5 Gr
+5V B6 Bl
CMPM+(+24V during activation) B7 Vt B Rd Rd M Clamp Motor
CMPM-(a pulse appear when motor stops) B8 Gy B Or Bk
GND B9 Wh Gy SEN Compressing Sensor (Photo Interrupt Type)
+5V when blocked(during master compression) B10 Bk Wh
+5V B11 Br Bk
HIAM+(+24V during compression) B12 Rd Br Bl M Compressing Motor
HIAM-(+24V during return procedure) B13 Or Rd Rd
HITMO(LOW when activated) B14 Yw Or Bl M Master Removable Motor
HITMC(+24V) B15 Gr Yw Rd
GND B16 Bl B Br D Drum Data
DMHDAT B17 Vt B Rd D Br
GND B18 Gy B Or D Ink Data
INKDAT B19 Wh B Yw D Or
GND B20 Bk B Gy D Gy Gr Ink Sensor SEN Overflow Sensor Ink Sensor PCB
+5V when ink sensor needle touch with the ink(Ink not pumping) B21 Br B Vt D Vt Bl
+5V when overflow sensor needle touch with the ink(Overflow) B22 Rd B Bl D Bl Vt
+5V B23 Or B Gr D Gr Gy
INKMO(LOW when activated) B24 Yw B Wh D Wh Bk M Inking Motor
INKMC(+24V) B25 Gr B Bk D Bk Rd

***Drum Size Data reference**

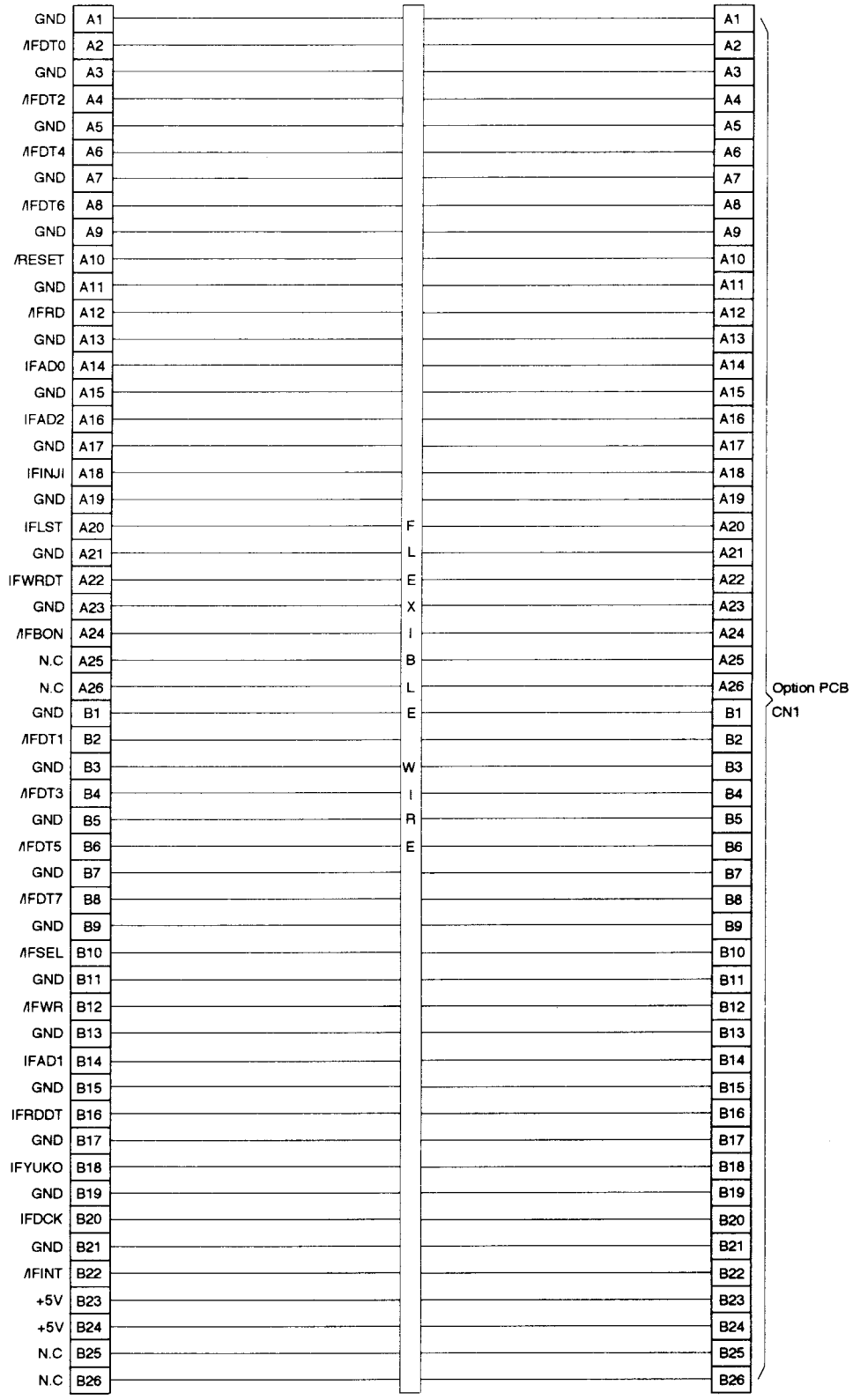
Drum/Wire	Drum Size Data 1	Drum Size Data 2
A4 Drum	Disconnect	Connect
B4 Drum	Connect	Connect
Leagal Drum	Connect	Disconnect


CN5
34PINS
A: Wire Harness;Paper Feed II
N.C A1
LOW when pressed(Cover closed) A2
GND A3
+5V A4
LOW when reflected light detected(Detects master on the drum) A5
GND A6
+5V A7
+5V when blocked(Detects upper limit position) A8
GND A9
+5V A10
LOW when blocked(Detects paper) A11
GND A12
N.C A13
+5V A14
LOW when reflected light detected(Detects paper) A15
GND A16
N.C A17
N.C B1
N.C B2
N.C B3
+5V B4
GND B5
GND B6
KDAT B7
KDATN B8
LDAT B9
LDATN B10
CLK B11
CLKN B12
LATCH B13
D+5V B14
D+5V B15
DGND B16
DGND B17
Rd Or Yw Gr Bl Vt Gy Wh Bk Br Rd Yw Gr Bl Yw Gr Bl
Br Rd Or Yw Gr Bl Vt Gy Wh Bk Br Rd Or Yw Gr Bl
Br Rd
SW
Master Removal Cover Switch
SEN
Master Sensor
(Reflective Type)
SEN
Upper Limit Sensor
(Photo Interrupt Type)
Or Wh Bk
SEN
Paper Sensor(Rcv)
(Light Transmission Type)
Wh Bk Br
SEN
Paper Detection Sensor
(Reflective Type)
Or Bk
SEN
Paper Sensor(Send)
GND KDAT KDATN LDAT LDATN CLK CLKN LATCH D+5V D+5V DGND DGND
Panel PCB

Main PCB


CN10 30PINS
+24V(PLSC) A1 Br Rd S Pressure Solenoid
LOW when activated A2 Rd Bk
+24V(SCMC) A3 Or Br Rd M Paper Ejection Motor
LOW when activated A4 Yw Rd Bk
+24V(SCFC) A5 Gr Or Rd F Suction Fan
LOW when activated A6 Bl Yw Bk
+24V(BRFC) A7 Vt Br Rd F Separation Fan
LOW when activated A8 Gy Rd Bk
+5V A9 Wh Or SEN Paper Receiving Sensor (Reflective Type)
LOW when blocked(Detects paper) A10 Bk Yw
GND A11 Br Gr
GND A12
+5V A13 Or SEN Lower Limit Sensor (Photo Interrupt Type)
+5V when blocked(Detects lower limit position) A14 Yw
GND A15 Gr
GND B1 Br SEN Print Positioning Sensor (Photo Interrupt Type)
+5V when blocked(Detects paper on the Tray) B2 Rd
+5V B3 Or
GND B4 Yw A Yw Bk MC Master Counter
CUSTNT B5 Gr A Gr Bl TC Copy Counter
LOW when activated B6 Bl A Bl Vt
+24V(MSCTC) B7 Vt A Vt Gy
LOW when activated B8 Gy A Gy Wh
+24V(PRCTC) B9 Wh A Wh Or M Print Positioning Motor
Print pos.Motor(A pulse) B10 Bk Yw
Print pos.Motor(Rev.A pulse) B11 Br Br
Print pos.Motor(B pulse) B12 Rd Bk
Print pos.Motor(Rev.B pulse) B13 Or Rd
Print pos.Motor(Com.A pulse) B14 Yw Wh
Print pos.Motor(Com.B pulse) B15 Gr
+50V
0V
Waveform

CN11 52PINS


GND A1
/FDT0 A2
GND A3
/FDT2 A4
GND A5
/FDT4 A6
GND A7
/FDT6 A8
GND A9
/RESET A10
GND A11
/FRD A12
GND A13
IFAD0 A14
GND A15
IFAD2 A16
GND A17
IFINJI A18
GND A19
IFLST A20
GND A21
IFWRDT A22
GND A23
/FBON A24
N.C A25
N.C A26
GND B1
/FDT1 B2
GND B3
/FDT3 B4
GND B5
/FDT5 B6
GND B7
/FDT7 B8
GND B9
/FSEL B10
GND B11
/FWR B12
GND B13
IFAD1 B14
GND B15
IFRDDT B16
GND B17
IFYUKO B18
GND B19
IFDCK B20
GND B21
/FINT B22
+5V B23
+5V B24
N.C B25
N.C B26
FLEXIBLE WIRE
A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20 A21 A22 A23 A24 A25 A26 B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23 B24 B25 B26
Option PCB CN1